

# Notice of Allowability

Application No.

10/074,620

Examiner

Bao Qun Li

Applicant(s)

GREEN ET AL.

Art Unit

1648

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to April 27, 2004.
2. ☒ The allowed claim(s) is/are 3,4,9-14,19-34 and 39.
3. ☐ The drawings filed on \_\_\_\_\_ are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All b) ☐ Some\* c) ☐ None of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

## Attachment(s)

- |   |  |
|---|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892)  | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                | 6. <input type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),<br>Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment                    |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material          | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance   |
|   | 9. <input checked="" type="checkbox"/> Other <u>Interview summary</u> .                |

Bao Qun Li

### EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

2. Authorization for this examiner's amendment was given in a telephone interview with Karlyn A. Schnapp on April 27, 2004.

3. The claims in the application has been amended as follows:

Claim 1 (canceled)

Claim 2 (canceled)

Claim 3 (current amended):

In line 3 after "hybridize to" deleted " a chromosomal gene " and inserted --- a nucleic acid sequence ---

In line 4 after "Epstein-Barr virus" deleted " nucleic acid molecule"

In line 7 deleted " selected from the group consisting of (a) the oligonucleotide pairs of SEQ. ID. No. 1 and SEQ. ID. NO. 2 and (b) the oligonucleotide pair of SEQ. ID. NO. 5 and SEQ. ID. NO. 6." and inserted --- of SEQ ID NO: 1 and SEQ ID NO: 2, respectively.---

Claim 4 (current amended):

In line 3 after "hybridize to" deleted " a chromosomal gene " and inserted --- a nucleic acid sequence ---

In line 4 after Epstein-Barr virus" deleted " nucleic acid molecule"

In line 7 after (a) deleted " SEQ. ID. No. 1 and SEQ. ID. NO. 2, and (b) the oligonucleotide pair of SEQ. ID. NO. 5 and SEQ. ID. NO. 6, (c) a nucleotide pair which differs from SEQ. ID. NO. 1 and SEQ. ID. NO. 2" and inserted --- SEQ ID NO: 1 and SEQ ID NO: 2, and (b) a primer pair, which differs from SEQ ID NO: 1 and SEQ ID NO: 2 ---

In lines 10 after "therein," deleted "a nucleotide pair which differs from SEQ. ID. NO. 5 and SEQ. ID. NO. 6 by a one base change or substitution therein"

Claim 5 (canceled)

Claim 6 (canceled)

Claim 7 (canceled)

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Claim 8 (canceled)

Claim 9 (current amended):

In line 2 after "of" deleted " SEQ. ID. NO. 1 and SEQ. ID. NO. 2 or the oligonucleotide pair of SEQ. ID. NO. 5 and SEQ. ID. NO. 6" and inserted --- SEQ ID NO: 1 and SEQ ID NO: 2 ---

In line 6 after "of" deleted " SEQ. ID. NO. 1 and SEQ. ID. NO. 2 or the oligonucleotide pair of SEQ. ID. NO. 5 and SEQ. ID. NO. 6" and inserted --- SEQ ID NO: 1 and SEQ ID NO: 2 ---

Claim 15 (Canceled).

Claim 16 (Canceled)

Claim 17 (Canceled).

Claim 18 (Canceled).

Claim 26 (current amended):

In line 4 after "including" deleted " at least"

In line 5 after "pair" deleted " selected from the group consisting of the oligonucleotide pair of SEQ. ID. No. 1 and SEQ. ID. NO. 2, the oligonucleotide pair of SEQ. ID. NO. 5 and SEQ. ID. NO. 6" and inserted --- of SEQ ID NO: 1 and SEQ ID NO: 2 ---

Claim 31 (current amended):

In line 7 after "are" deleted " selected from the group consisting of SEQ. ID. No. 1 with SEQ. ID. NO. 2, and SEQ. ID. NO. 5 and SEQ. ID. NO. 6" and inserted --- SEQ ID NO: 1 and SEQ ID NO: 2 ---

Claim 33 (current amended):

In line 2 after " pair" deleted " selected from the group consisting of the oligonucleotide pair of SEQ. ID. No. 1 and SEQ. ID. NO. 2, the oligonucleotide pair of SEQ. ID. NO. 5 and SEQ. ID. NO. 6, " and inserted --- of SEQ ID NO: 1 and SEQ ID NO: 2 ---

In line 4 after "of" deleted "SEQ. ID. No. 1 and SEQ. ID. NO. 2 and the oligonucleotide pair of SEQ. ID. NO. 5 and SEQ. ID. NO. 6"

Claim 35 (canceled)

Claim 36 (canceled)

Claim 37 (canceled)

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Claim 38 (canceled)

Claim 40 (canceled)

Claim 41 (canceled)

Claims 3-4, 9-14, 19-34 and 39 are allowed.

4. The following is an examiner's statement of reasons for allowance:

No prior art teaches or suggests that a primer pair used together for detecting the Epstein-Barr virus is SEQ ID NO: 1 and SEQ ID NO: 2 or a pair of nucleic acid sequences having at least 95% homology to SEQ ID NO: 1 and SEQ ID NO: 2 or a pair of nucleic acid sequences only differed from the SEQ ID NO: 1 and SEQ ID NO: 2 with one base change or substitution. The closest prior art (WO 9,516,028A1) only teaches one nucleic acid sequence of SEQ ID NO: 2; however, it does not teach to use a pair of oligonucleotide sequences of SEQ ID NO: 1 and SEQ ID NO: 2 together for detecting EBV. Therefore, the 102 rejection is withdrawn.

Regarding to the 112 1<sup>st</sup> paragraph rejection, Applicants amended claims and submitted that the nature of the invention that requires to perform the broad claims is not undue because the specification does provide adequate direction to those skilled in the art. Moreover, the experimentation acceptable in the art, even if some degree of repetition will likely to be necessary to achieve the desired result (See response filed on 02/05/2004). Therefore, based on the notion that while sequences that are 100% would more strong and more selectively hybridize to EBV sequences in a sample, one would still expect amplification and resultant detection to occur using sequence of lower identity, the 112 1<sup>st</sup> paragraph rejection is withdrawn.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bao Qun Li whose telephone number is 571-272-0904. The examiner can normally be reached on 7:00 am to 3:00 pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Housel can be reached on 571-272-0902. The fax phone number for the organization where this application or proceeding is assigned is 571-272-1600.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Bao Qun Li

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April 28, 2004

  
JAMES HOUSEL 5/3/04  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 1600